

REMARKS

Reconsideration of the application is requested.

Claims 16-34 remain in the application. Claims 16-34 are subject to examination. Claims 16 and 31 have been amended.

Under the heading "Claim Rejections – 35 USC § 102" on page 2 of the above-identified Office Action, claims 16-19, 22, 26, and 29-35 have been rejected as being fully anticipated by Published U.S. Patent Application No. 2002/0140215 A1 to Breed et al. under 35 U.S.C. § 102. Applicants respectfully traverse and have also amended claims 16 and 31 to even more clearly define the invention.

Support for the changes to claims 16 and 31 can be found by referring to the application at page 15, line 17 through page 16, line 8 with reference to Fig. 1, and at page 24, line 9 through page 25, line 14.

Claims 16 and 31 have been amended to further stress the point that one transmitter emits radiation to the reflectors in a plurality of seats, and that the plurality of reflectors in the plurality of seats reflect the high-frequency radiation that is emitted from that single transmitter. Claims 16 and 31 have also been amended to specify that a single receiver unit receives the radiation that is reflected by the plurality of reflectors in the plurality of seats.

Breed et al. do not teach or suggest the limitations of claims 16 and 31 that have been referenced above. Breed et al. teach that at least one transmitting transducer 132 will be provided at each seat location (see paragraph 0178). In other words, multiple transmitters are used to emit radiation towards a plurality of seats.

Breed et al. also teach that the receiving transducers 131, 133 will be provided at each seat location (see paragraph 0178). Accordingly, multiple receiver units would be used to receive the radiation that is reflected by the plurality of reflectors that are in the plurality of seats.

The invention as defined by claims 16 and 31 is not taught or suggested by Breed et al.

Applicants believe they have clearly set forth the differences between the claimed invention and the teaching in Breed et al., however applicants want to respond to the Examiner's "Response to Arguments". In the "Response to Arguments" section of the Office action, the Examiner has stated, "It is noted that the claim uses "comprising" which is open language. Therefore, as long as the prior art shows at least one transmitter the recitation of "a single transmitter" is anticipated. Applicants respectfully believe that the Examiner's understanding of the issue is not correct.

Claims 16 and 31 specify that one transmitter emits radiation to the reflectors in a plurality of seats, and that the plurality of reflectors in the plurality of seats reflect the high-frequency radiation that is emitted from that single transmitter. It does not matter how many transmitters are combined with one or more transmitters that are taught by Breed et al., the limitation copied above will never be obtained. In other words, even if additional transmitters are added to the teaching in Breed et al., there will still not be a single transmitter that emits a field of high-frequency radiation towards a plurality of seats.

All of the embodiments in Breed et al. show a transmitter that only emits radiation towards one seat, one window, or one door. Breed et al. teach using a first transmitting transducer to emit radiation towards the receiving transducers in a first seat (a passenger seat, for example). Breed et al. teach using another separate second transmitting transducer, which is located near a second seat, in order to emit radiation towards the receiving transducers in the second seat (the drivers seat, for example). The first transmitting transducer does not emit radiation towards the second seat, but rather only emits radiation towards the first seat. The transmitting transducer 132 and receiving transducer 131, 133 configuration is taught at Fig. 1 and at paragraph 0170 of Breed et al. See paragraph 0178 for the teaching specifying that each seat location will be provided with a similar system to monitor the presence of occupants in the other seats.

In the “Response to Arguments” section, the Examiner has also stated, “With regards to radiation reflected by the plurality of reflectors in the plurality of seats Breed discloses at least one reflector arranged in association with the object and arranged to reflect energy signal (paragraph 87).” Paragraph 0087 simply suggests that more than one reflector could be used to detect information about “an object”. Paragraph 0087 does not in any way teach or suggest using a single transmitter to transmit radiation to a plurality of seats, whereby the reflectors associated with the plurality of seats act to reflect the radiation that is emitted by the single or common transmitter. Furthermore, when one considers the teaching in paragraphs 0169 and 0170, which the Examiner has referenced to support the rejection, one clearly sees that Breed et al. do not teach providing the seats with even a single reflector to deduce information about the seat occupancy. Paragraph 0170 teaches that the item that occupies the seat will reflect the ultrasonic energy. The seats are not provided with reflectors. In Breed et al., only the item that occupies a particular seat will reflect the radiation that has been emitted by a transmitting transducer. Additionally, the transmitting transducer emits radiation to only that particular seat.

In the “Response to Arguments” section, the Examiner has also stated, “A plurality of seats is disclosed in figure 6 showing a driver’s seat and figure 1 showing a passenger seat (paragraphs 0169 and 0170).” Each seat, however, has its own transmitting transducer. Paragraph 0170 and Fig. 1 teach that transducer 132 transmits ultrasonic energy towards the front passenger seat.

Paragraph 0222 and Fig. 6 only teach that the transducers 231 and 232 could be laser or other electromagnetic wave transducers. There is no other teaching regarding the system shown in Fig. 6. In fact the heading just above paragraph 0222 is “4.4 Other Electromagnetic Transducers”. Paragraph 0168 includes the heading, “Basic System”. The basic system is taught in paragraphs 0169 through 0178. Applicants again refer to paragraph 0178 for the teaching specifying that each seat location will be provided with a similar system to monitor the presence of occupants in the other seats. In other words, each seat location will be provided with its own transmitting transducer and receiving transducers.

The invention as defined by claims 16 and 31 is not taught or suggested by Breed et al.

Under the heading “Claim Rejections – 35 USC § 102” on page 4 of the above-identified Office Action, claims 16, 19, and 31 have been rejected as being fully anticipated by U.S. Patent No. 6,099,030 to Kraft under 35 U.S.C. § 102.

Claims 16 and 31 specify that one transmitter emits radiation to the reflectors in a plurality of seats, and that the plurality of reflectors in the plurality of seats reflect the high-frequency radiation that is emitted from that single transmitter. Claims 16 and 31 also specify that a single receiver unit receives the radiation that is reflected by the plurality of reflectors in the plurality of seats.

Kraft teaches a configuration that operates with one seat, and not with a plurality of seats. The configuration is not used with a plurality of reflectors in a plurality of seats. There is no teaching related to somehow configuring the transmitting and receiving device 13 to emit radiation towards a plurality of seats such that the emitted radiation would be reflected.

Additionally, there is nothing relating to using a single receiver unit to receive radiation reflected from a plurality of reflectors in a plurality of seats. In fact each seat location would have to be provided with independently located receiving devices, such as, receiving devices 13, 14, 14A, and 14B in order to measure the specific distances A1, A2, A3, A4 extending between the location of the particular receiving device 13, 14, 14A, or 14B and either the head of the seated person (distance A1) or the reflective portion of the safety belt (distances A2, A3, A4). This is so that the distances to the windshield, instrument panel, steering wheel, and steering column can be determined (see column 3, lines 13-27 and Fig. 1 in this regard). At the other front seat location, perhaps only the distances to the windshield and instrument panel would be measured, for example, but there would still be receivers that are specifically located and configured for that seat location independently from other seat locations.

The invention as defined by claims 16 and 31 is not anticipated.

Under the heading "Claim Rejections – 35 USC § 103" on page 6 of the above-identified Office Action, claims 20 and 21 have been rejected as being obvious over U.S. Patent No. 6,099,030 to Kraft in view of U.S. Patent No. 4,700,974 to Andres et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Even if there were a suggestion to combine the teachings in Kraft and Andres et al., for some reason, the invention as defined by claims 20 and 21 would not have been obtained for the reasons given above with regard to claim 16.

Additionally, Andres et al. teach an outdated triggering system that uses an igniter 6 and a pyrotechnic driving unit 7, which when ignited, causes the strap 11 to be pulled tight. The triggering system is placed in an electromagnetically shielded housing 14 to suppress signals that would interfere with the operation of the pyrotechnic triggering system. The electromagnetically shielded housing 14 would serve no purpose when used with a modern electrically actuated belt-tensioning system, and there is no reason to use such shielding with a modern electrically actuated belt-tensioning system.

Under the heading "Claim Rejections – 35 USC § 103" on page 6 of the above-identified Office Action, claims 23-25, 27, and 28 have been rejected as being obvious over Published U.S. Patent Application No. 2002/0140215 A1 to Breed et al. in view of U.S. Patent No. 6,946,949 B2 to Heide et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Even if there were a suggestion to combine the teachings in Breed et al. and Heide et al., for some reason, the invention as defined by claims 23-25, 27, and 28 would not have been obtained for the reasons given above with regard to claim 16.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 16 or 31. Claims 16 and 31 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 16 or 31.

In view of the foregoing, reconsideration and allowance of claims 16-34 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

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Respectfully submitted,

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